

# APPENDIX A

Claim 1	Taiwan Patent No. 186944 “Yuan”	U.S. Patent No. 5,375,655 “Lee”
A heat sink assembly for use in removal of heat from a heat generating electronic device, said heat sink assembly comprising:	Figures 1-3	Abstract: “An improved heat sink apparatus....”
(a) a solid flat base;	Figures 1-3, item 30	Figures 2, 5-9, item 25 Abstract: “The apparatus includes a thermally conductive base plate....”
(b) a housing which is fixed relative to said base,	Figures 1-3, item 20	Figures 5-8, item 28
said housing having a top wall which is spaced from said base, and side walls which extend from said base to said top wall, a first end opening at a first end of said base which is defined by said base, side walls and top wall, a second end opening which is defined by said base, side walls and top wall at a second end of said base which is opposite said first end opening,	Figures 1-3, item 20	Figures 5-8, item 28
and an aperture in said top wall which is spaced from said first and second end openings;	Figure 1, item 21	Figure 7, items 28 and 34
(c) a plurality of parallel spaced fins which are fixed to said base,	Figures 1-3, item 31	Figures 2, 5-9, item 14 “A complete assembly of fin assembly components is mounted on a thick plate and bonded to the plate via adhesive, solder, brazing or other suitable means.” 2:34-37
said fins extending from said base to said top wall,	Figures 1-3, item 31	Figures 5-8, item 28
said fins defining with said base and said top wall a plurality of channels which extends from said first end opening to said second end opening,	Figures 1-3, item 31	Figures 10, 12

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Claim 1	Taiwan Patent No. 186944 “Yuan”	U.S. Patent No. 5,375,655 “Lee”
the portions of said channels which lie beneath said aperture being open to said aperture; and	Figures 1-3, item 31	Figure 7, items 28 and 34
(d) a fan assembly which is fixed to said top wall above said aperture for blowing air through said aperture and creating an airflow through said channels from said aperture to each of said first and second end openings.	Figures 1-3, items 10, 11, 12	“The same advantage is also obtainable in forced fluid flow applications, where a fan is used to increase circulation across finned surfaces of a heat sink, resulting in an improved performance.” 5:67-6:3 “The arrangement of FIG. 7 uses a cover 28 having an opening therein to allow a split fluid flow pattern that directs fluid flow into the top opening and out two sides of the apparatus.” 8:43-46

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Claim 2	Taiwan Patent No. 186944 “Yuan”	U.S. Patent No. 5,375,655 “Lee”
A heat sink assembly as recited in claim 1, wherein said fan assembly comprises:	Figures 1-3, items 10, 11, 12	Abstract: “An improved heat sink apparatus....”
(a) a fan housing which is fixed to said top wall, said fan housing having a bottom opening at said aperture and a top opening; and	Figures 1-3, items 10, 11, 12	“The same advantage is also obtainable in forced fluid flow applications, where a fan is used to increase circulation across finned surfaces of a heat sink, resulting in an improved performance.” 5:67-6:3 “The arrangement of FIG. 7 uses a cover 28 having an opening therein to allow a split fluid flow pattern that directs fluid flow into the top opening and out two sides of the apparatus.” 8:43-46
(b) a rotor which has at least one fan blade, said rotor being rotatably mounted within said fan housing between said bottom and top openings.	Figures 1-3, item 10	An axial fan inherently has a rotor and at least one fan blade

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Claim 7	Taiwan Patent No. 186944 "Yuan"	U.S. Patent No. 5,375,655 "Lee"
A heat sink assembly for use in removal of heat from a heat generating electronic device, said heat sink assembly comprising:	Figures 1-3	Abstract: "An improved heat sink apparatus...."
(a) a flat base wall;	Figures 1-3, item 30	Figures 2, 5-9, item 25 Abstract: "The apparatus includes a thermally conductive base plate...."
(b) a housing which is fixed relative to said base wall,	Figures 1-3, item 20	Figures 5-8, item 28
said housing having a top wall which is spaced from said base wall, and side walls which extend from said base wall to said top wall; a first end opening at a first end of said base wall which is defined by said base wall, said side walls and said top wall, a second end opening which is defined by said base wall, said side walls and said top wall at a second end of said base wall which is opposite said first end, and an aperture in said top wall which is spaced from said first and second end openings;	Figure 1, item 21	Figure 7, items 28 and 34
(c) a plurality of parallel spaced fins which are fixed to said base wall,	Figures 1-3, item 31	Figures 2, 5-9, item 14 "A complete assembly of fin assembly components is mounted on a thick plate and bonded to the plate via adhesive, solder, brazing or other suitable means."
		2:34-37
said fins extending from said base wall to said top wall,	Figures 1-3, item 31	Figures 5-8, item 28
said fins defining with said base and said top wall a plurality of channels which extends from said first end opening to said second end opening,	Figures 1-3, item 31	Figures 10, 12

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Claim 7	Taiwan Patent No. 186944 "Yuan"	U.S. Patent No. 5,375,655 "Lee"
the portions of said channels which lie beneath said aperture being open to said aperture; and	Figures 1-3, item 31	Figure 7, items 28 and 34
(d) a fan assembly which is fixed to said top wall above said aperture for blowing air through said aperture and creating an airflow through said channels from said aperture to each of said first and second end openings, said fan assembly comprising:	Figures 1-3, items 10, 11, 12	"The same advantage is also obtainable in forced fluid flow applications, where a fan is used to increase circulation across finned surfaces of a heat sink, resulting in an improved performance." 5:67-6:3 "The arrangement of FIG. 7 uses a cover 28 having an opening therein to allow a split fluid flow pattern that directs fluid flow into the top opening and out two sides of the apparatus." 8:43-46
(1) a fan housing which is fixed to said top wall, said fan housing having a bottom opening at said aperture and a top opening; and	Figures 1-3, items 10, 11, 12	"The same advantage is also obtainable in forced fluid flow applications, where a fan is used to increase circulation across finned surfaces of a heat sink, resulting in an improved performance." 5:67-6:3 "The arrangement of FIG. 7 uses a cover 28 having an opening therein to allow a split fluid flow pattern that directs fluid flow into the top opening and out two sides of the apparatus." 8:43-46
		An axial fan inherently has a rotor and at least one fan blade
(2) a rotor which has at least one fan blade, said rotor being rotatably mounted within said fan housing between said bottom and top openings.	Figures 1-3, item 10	
said fan blade being spaced from the fins so as to define a plenum chamber between said blade and said fins	Figure 2 Obvious to combine with 333100 Disclosure	Figure 7, items 28 and 34 Obvious to combine with 333100 Disclosure

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Claim 8	Taiwan Patent No. 186944 “Yuan”		U.S. Patent No. 5,375,655 “Lee”
A heat sink assembly as recited in claim 7, wherein the portions of said fins which are directly below said aperture are below the level of said top wall and are vertically spaced from said aperture.	Obvious way to provide the plenum of Claim 7 Obvious to combine with 333100 Disclosure		Obvious way to provide the plenum of Claim 7 Obvious to combine with 333100 Disclosure

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Claim 9	U.S. Patent No. 5,375,655 "Lee"	Japanese Patent 63-157994 "Tanaka"
A heat sink assembly for use in removal of heat from a heat generating electronic device, said heat sink assembly comprising:	Abstract: "An improved heat sink apparatus...."	Figures 1 and 8
(a) a flat base wall;	Figures 2, 5-9, item 25 Abstract: "The apparatus includes a thermally conductive base plate...."	Figures 6 and 7, item 3
(b) a housing which is fixed relative to said base wall,	Figures 5-8, item 28	Figure 8, items 21 and 27
said housing having a top wall which is spaced from said base wall, and side walls which extend from said base wall to said top wall, a first end opening at a first end of said base wall which is defined by said base wall, said side walls and said top wall, a second end opening which is defined by said base wall, said side walls and said top wall at a second end of said base which is opposite said first end, and an aperture in said top wall which is spaced from said first and second end openings;	Figure 7, items 28 and 34	Figure 8, item 29
(c) a plurality of parallel spaced fins which are fixed to said base wall,	Figures 2, 5-9, item 14 "A complete assembly of fin assembly components is mounted on a thick plate and bonded to the plate via adhesive, solder, brazing or other suitable means."	Figures 6 and 7, item 4
said fins extending from said base wall to said top wall,	Figures 5-8, item 28	Figure 2, item 4
said fins defining with said base wall and said top wall a plurality of channels which extends from said first end opening to said second end opening,	Figures 10, 12	Figure 1 and 8

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Claim 9	U.S. Patent No. 5,375,655 "Lee"	Japanese Patent 63-157994 "Tanaka"
the portions of said channels which lie beneath said aperture being open to said aperture,	Figure 7, items 28 and 34	Figure 6, item 4
said fins being a single continuous length of material which extends transversely of said channels, each of said fins having an upper end which is connected to the upper end of an adjacent fin and a lower end which is connected to the lower end of a different adjacent fin,	Figure 1 "The component 10 comprises a thick strip 12 of thermally conductive material formed into a plurality of corrugations 14." 7:33-35	Figure 6, item 4
the portions of said fins which are vertically aligned with said aperture being unconnected at their upper ends so that all of said channels are operatively connected to said aperture; and	Obvious to make upper ends unconnected to provide airflow when using the single fin configuration of Figure 12	The fins in Figure 6 are unconnected at side portions to allow connection with the aperture; it is obvious to have them be unconnected at upper ends to allow connection with the aperture
(d) a fan assembly which is fixed to said top wall above said aperture for blowing air through said aperture and creating an airflow through said channels from said aperture to each of said first and second end openings.	"The same advantage is also obtainable in forced fluid flow applications, where a fan is used to increase circulation across finned surfaces of a heat sink, resulting in an improved performance." 5:67-6:3 "The arrangement of FIG. 7 uses a cover 28 having an opening therein to allow a split fluid flow pattern that directs fluid flow into the top opening and out two sides of the apparatus." 8:43-46	Figure 8, item 28 "Intake fans (28) and (28) are positioned facing the intake holes (29) and (29) formed in the center of the inside cover (21) and the outside cover (22), respectively." p. 4 "[T]he heated outside air that has instead taken this heat is dissipated to the outside from the openings at both ends of the outer fluid channel." p. 4